

STARMAX

The world's leading battery brand



TELECOMMUNICATION **BATTERIES**

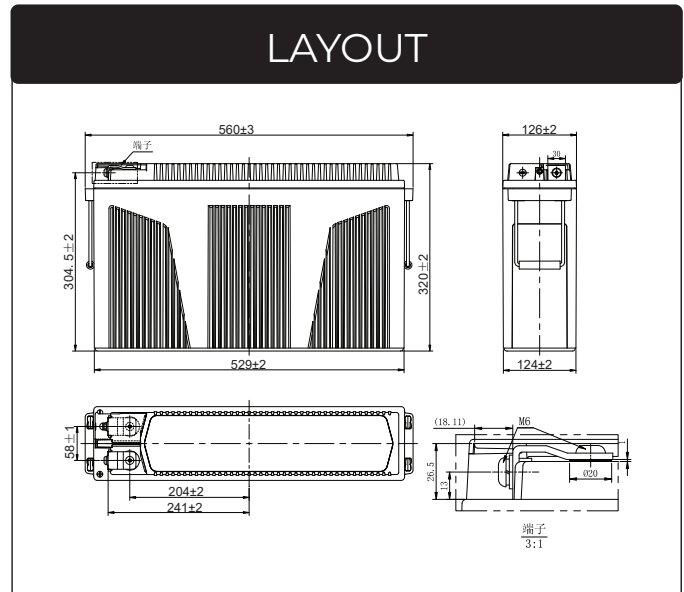
STF12-190 (12V 190Ah)



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FT SERIES - FRONT TERMINAL

STF12-190



General Features

- ✓ 12 years design life(25°C)
- ✓ Specifically ideal for 19 inches or 23 inches power cabinets
- ✓ Front terminals make the installation, maintenance and supervision easy
- ✓ Shield designs protect terminals from short circuit and show good appearance
- ✓ Unique vent valve design: reduce water losing and prevent air/spark going inside

Applications

- ✓ UPS
- ✓ For standard power cabinet
- ✓ Network connection equipment of communication system
- ✓ Power system of special network of local area network
- ✓ Power station systems

Standards

- ✓ Compliance with IEC 60896 standards, EU Battery Directive
- ✓ UL, CE Certified
- ✓ Manufactured in Starmax® IATF16949, ISO 45001,ISO 9001 and ISO 14001 certified production facilities



SPECIFICATIONS

Rated Voltage	12V	
Nominal Capacity	(C ₁₀ ,1.80V/cell)	190.0Ah
Dimensions	Length	560±3mm (22.0 inches)
	Width	126±2mm (4.96 inches)
	Container height	320±2mm (12.6 inches)
	Total height	320±2mm (12.6 inches)
Approx. weight	57.0 Kg (125.7 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	202.0 Ah	(20hr,10.1A,1.80V/cell)
	190.0 Ah	(10hr,19.0A,1.80V/cell)
	185.6 Ah	(8hr,23.2A,1.75V/cell)
	151.2 Ah	(5hr,33.3A,1.75V/cell)
	127.5 Ah	(1hr,127.5A,1.60V/cell)
Max. discharge current	1900A (5s)	
Internal resistance (25°C)	Approx 4.0mΩ	
Operating temp. range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~40°C (5~104°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 57.0A. Voltage 14.1V~14.4V at 25°C (77°F)Temp. Coefficient -30mV/°C	
Equalization Use	Initial Charging Current less than 57.0A.Voltage 13.5V~13.8V at 25°C (77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self discharge	STF series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

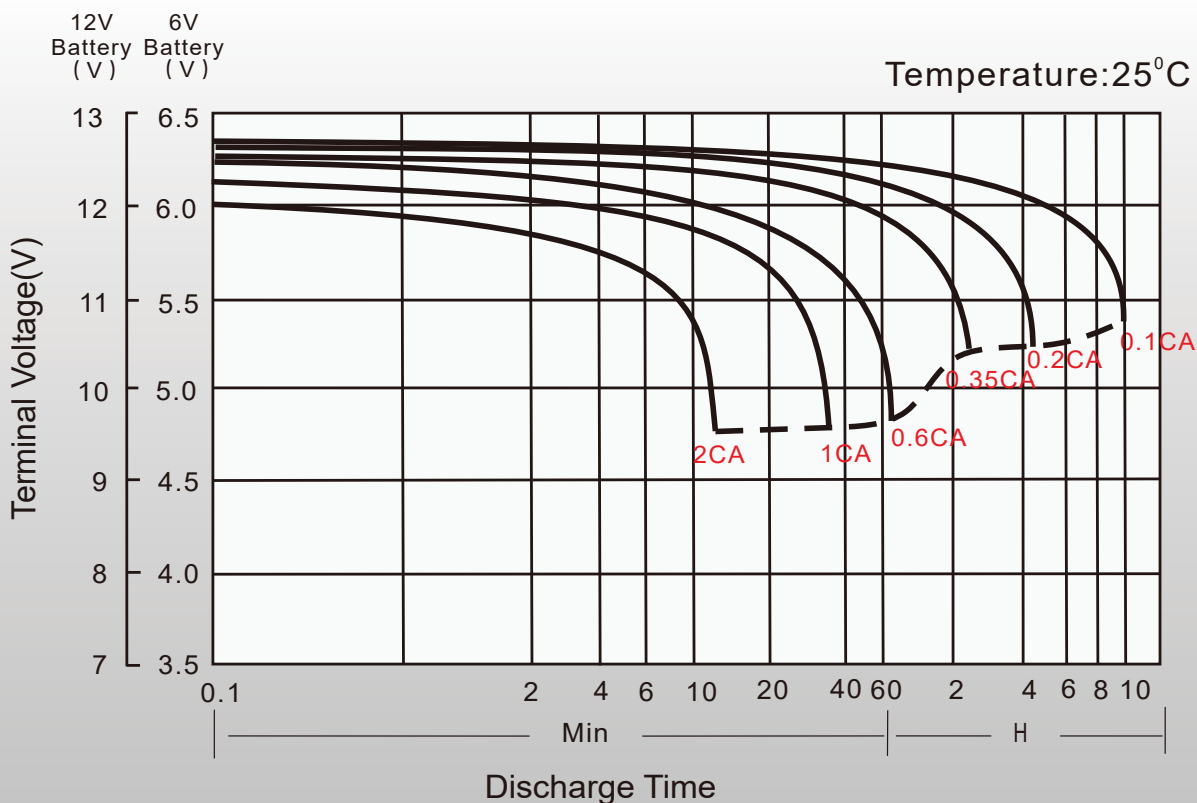
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	395.4	295.2	245.9	206.6	158.8	118.5	100.1	75.1	60.1	45.3	36.1	30.2	26.2	21.3	17.8	9.5
1.80V/cell	461.0	348.1	285.9	238.1	179.5	132.5	110.8	82.1	65.4	49.0	38.9	32.5	28.1	22.8	19.0	10.1
1.75V/cell	503.0	373.3	302.4	249.8	187.7	137.9	114.9	84.9	67.4	50.4	39.9	33.3	28.7	23.2	19.3	10.2
1.70V/cell	544.8	398.1	319.7	262.9	195.9	143.1	119.1	87.8	69.5	51.8	40.9	34.0	29.3	23.6	19.6	10.3
1.67V/cell	568.8	412.7	329.7	270.3	200.9	146.3	121.6	89.4	70.7	52.6	41.5	34.4	29.7	23.9	19.8	10.4
1.60V/cell	627.0	446.5	353.4	287.9	212.2	153.9	127.5	93.4	73.6	54.5	42.9	35.5	30.5	24.4	20.2	10.6

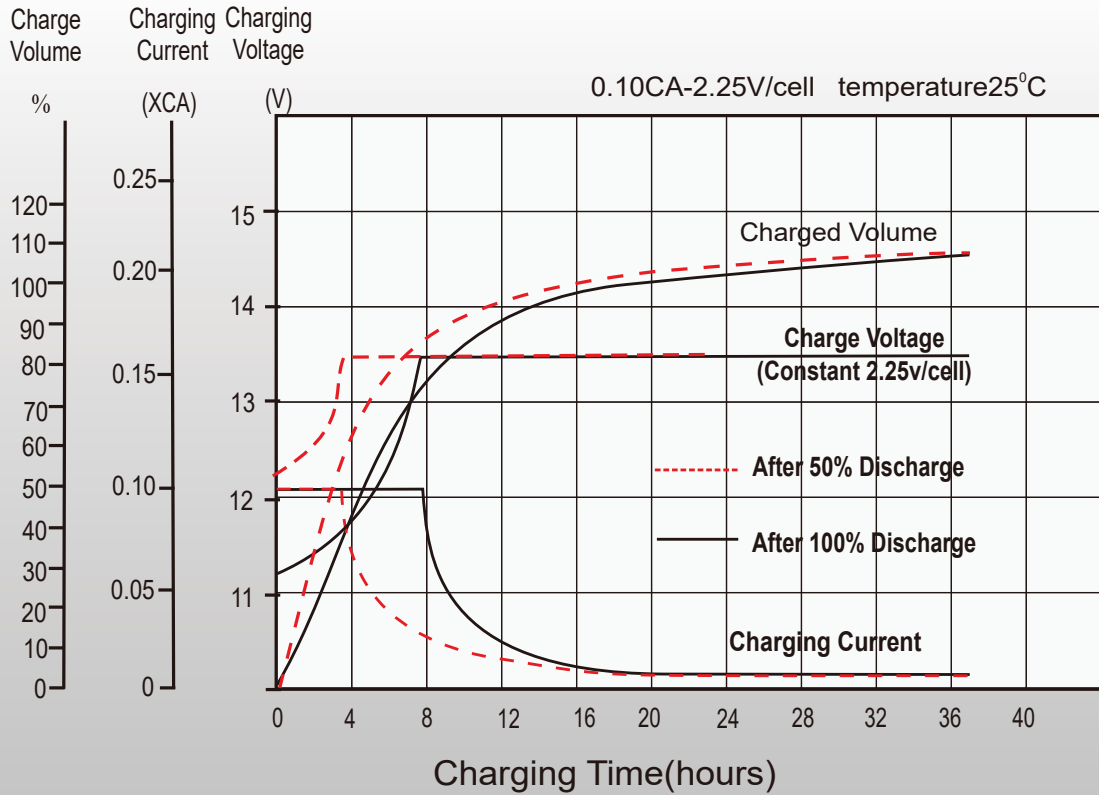
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	20min	15min	20min	30min	45min	2h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	751.4	565.1	472.3	398.1	306.9	229.8	194.6	146.4	117.5	88.9	71.0	59.4	51.7	42.1	35.2	19.0
1.80V/cell	862.6	658.3	543.5	454.3	344.1	255.1	213.9	159.3	127.1	95.8	76.2	63.8	55.3	45.0	37.5	20.0
1.75V/cell	927.0	697.3	569.0	472.1	356.6	263.4	220.2	163.6	130.3	97.9	77.8	65.1	56.3	45.7	38.1	20.2
1.70V/cell	987.6	733.9	594.6	491.8	368.9	271.2	226.8	168.1	133.8	100.3	79.5	66.3	57.3	46.4	38.6	20.5
1.67V/cell	1021.2	754.9	614.9	502.6	376.2	275.9	230.4	170.5	135.5	101.5	80.4	67.0	57.9	46.8	38.9	20.6
1.60V/cell	1097.3	800.2	641.6	526.8	392.4	287.1	239.3	176.7	140.2	104.6	82.7	68.8	59.3	47.8	39.6	21.0

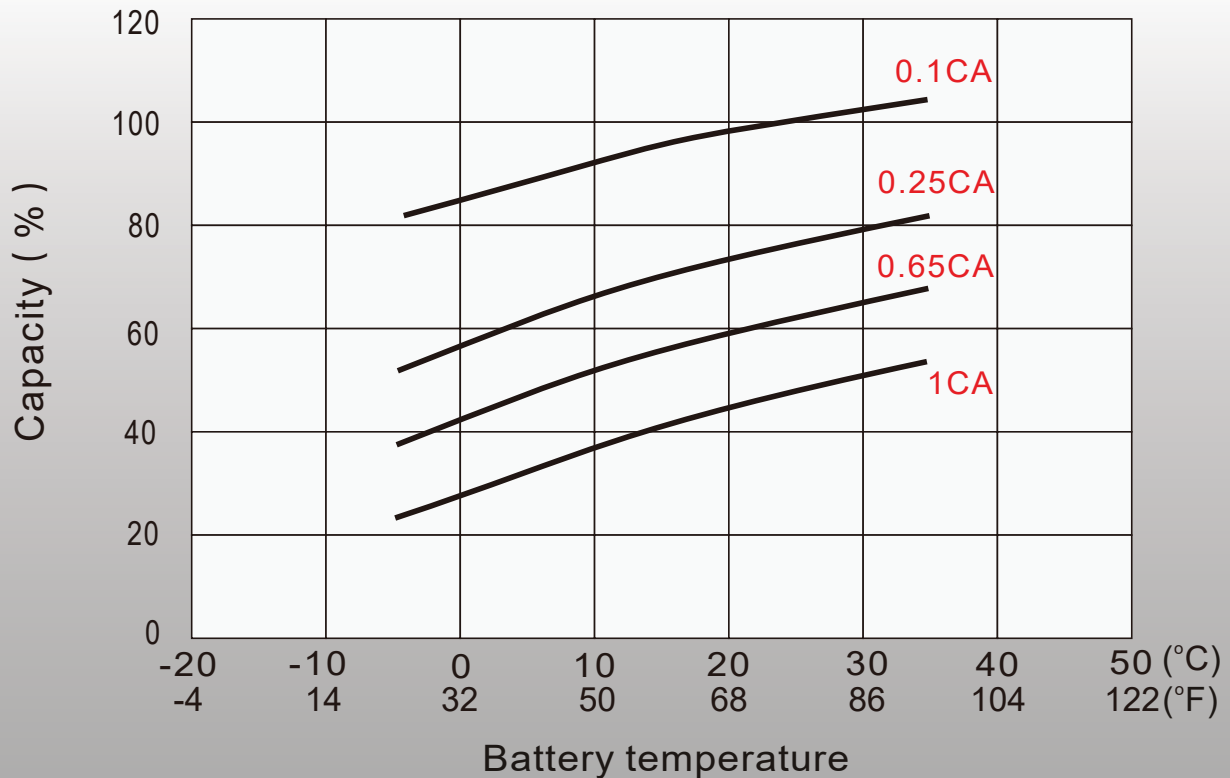
Discharge Characteristics



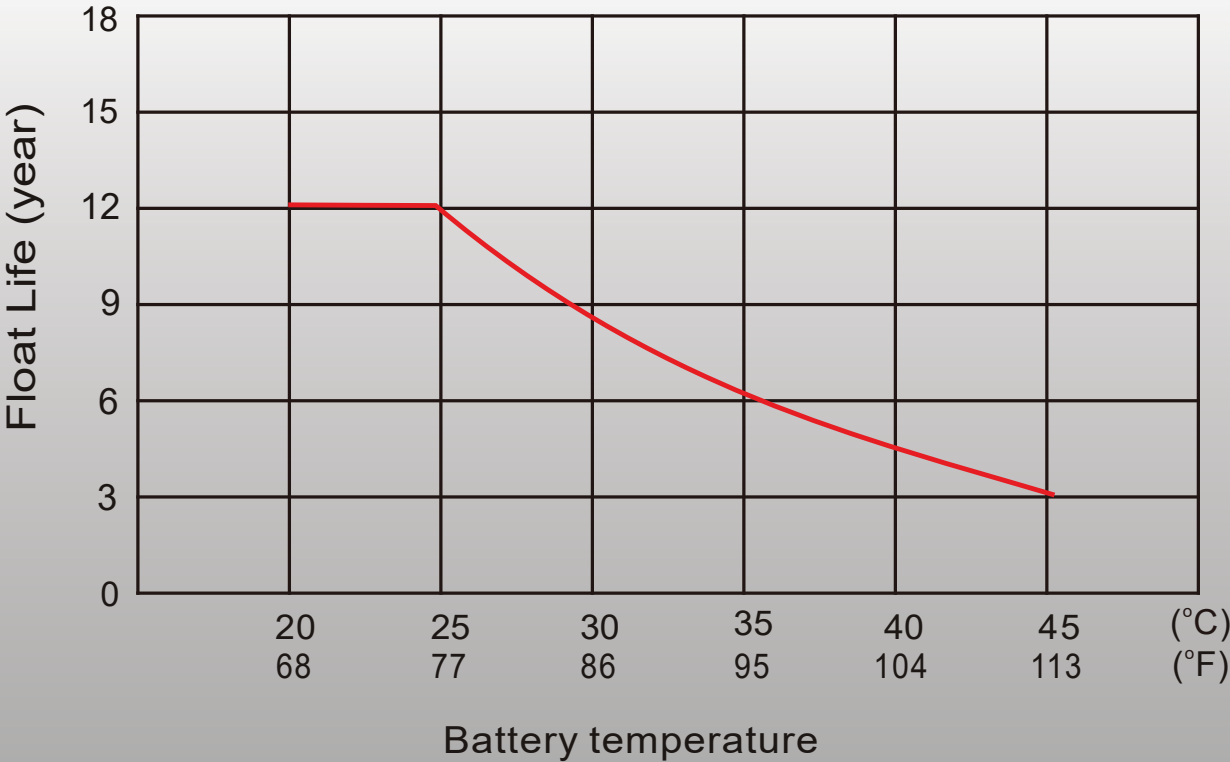
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life





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